

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 8

Complete If Known

Application Number 09/425,387 Reissue
Filing Date January 20, 2004
First Named Inventor Donald R. Loveday, et al.
Group Art Unit 1713
Examiner Name William K. Cheung
Attorney Docket Number 1999U026.RE

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code			
WKC		US-5,637,660-A	06-10-1997	Nagy et al.	
		US-5,798,427-A	08-25-1998	Foster et al.	
		US-5,426,243-A	06-20-1995	Jean-Pierre Lecouve	
		US-4,057,565	11-08-1977	Leo Ernest Manzer	
		US-5,726,115-A	03-10-1998	Horton et al.	
		US-6,291,614-B1	09-18-2001	Chen et al.	
		US-6,214,760-B1	04-10-2001	Chen et al.	
		US-6,211,111-B1	04-03-2001	Chen et al.	
		US-5,707,913-A	01-13-1998	Schlund et al.	
		US-5,889,128-A	03-30-1999	Schrock et al.	
		US-6,187,940-B1	02-13-2001	Chen et al.	
		US-5,854,166-A	12-29-1998	Marks et al.	
		US-5,763,549-A	06-09-1998	Elder et al.	
		US-6,417,304-B1	07-09-2002	McConville et al.	
		US-6,399,722-B1	06-04-2002	Szul et al.	
		US-6,380,328-B1	04-30-2002	McConville et al.	
		US-6,333,389-B2	12-25-2001	Whiteker et al.	
		US-6,300,439-B1	10-09-2001	David H. McConville	
		US-6,300,438-B1	10-09-2001	David H. McConville	
		US-6,274,684-B1	08-14-2001	Loveday et al.	
		US-6,271,325-B1	08-07-2001	McConville et al.	
		US 6,271,323-B1	08-07-2001	Loveday et al.	
		US 6,265,505-B1	07/24/2001	McConville et al.	

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		Country Code - Number-Kind Code				
WKC		BE09700674A7	07-06-1999			
		WO 99/02536	01-21-1999			
		WO 99/02472	01-21-1999			
		WO 98/55467	12-10-1998			
		WO 97/48736	12-24-1997			
		WO 97/45434	12-04-1997			
		WO 97/42197-A1	11-13-1997			
		WO 92/12162-A1	07-23-1992			
		WO 96/08498-A1	03-21-1996			

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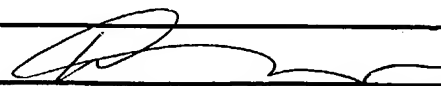
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WKC		US-5,955,555-A	09-21-1999	Alison Bennett		
		US-5,674,796-A	10-07-1997	Lee et al.		
		US-5,672,669-A	09-30-1997	Wasserman et al.		
		US-5,506,184-A	04-09-1996	Kissin et al.		
		US-6,410,474-B1	06-25-2002	Nowlin et al.		
		US-6,403,181-B1	06-11-2002	Barry et al.		
		US-5,539,076-A	07-23-1998	Nowlin et al.		
		US-5,318,935-A	06-07-1994	Canich et al.		
		US-5,643,846-A	07-01-1997	Reddy et al.		
		US-5,622,906-A	04-22-1997	Ted M. Pettijohn		
		US-5,614,456-A	03-25-1997	Mink et al.		
		US-6,518,444-B1	02-11-2003	McConville et al.		
		US-5,317,036-A	05-31-1994	Brady, III et al.		
		US-6,225,421-B1	05-01-2001	Promel et al.		
		US-6,090,893-A	07-18-2000	Harlin et al.		
		US-4,335,224	06-15-1982	Matsuura et al.		
		US-5,525,678-A	06-11-1996	Mink et al.		
		US-5,319,029-A	06-07-1994	Martin et al.		
		US-5,306,775-A	04-26-1994	Martin et al.		
		US-4,547,551	10-15-1985	Bailey et al.		
		US-4,461,873	07-24-1984	Bailey et al.		
	WKC		US-5,102,955-A	04-07-1992	Calabro et al.	
			US-5,693,727-A	12-02-1997	Goode et al.	

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		Country Code - Number-Kind Code				
WKC		WO 98/46651-A2	10-22-1998			
		WO 98/37109-A1	08-27-1998			
		WO 98/34964-A1	08-13-1998			
		WO 98/30612-A1	07-16-1998			
		WO 98/30569-A1	07-16-1998			
		WO 98/27124-A1	06-25-1998			
		WO 99/01460-A1	01-14-1999			
		WO 97/19959-A1	06-05-1997			
		WO 99/46304-A1	09-16-1999			

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		Country Code – Number-Kind Code				
WKE WKE		WO 91/12285-A1	08-22-1991			
		WO 98/37106-A1	08-27-1998			
		EP 0 893 454 A1	01-27-1999			
		EP 0 593 083 A1	04-20-1994			
		EP 0 423 962 A2	04-24-1991			
		EP 0 529 978 A1	03-03-1993			
		EP 0 528 523 A1	02-24-1993			
		EP 0 533 452 A1	03-24-1993			
		EP 0 241 560 A1	10-21-1987			

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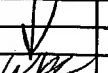
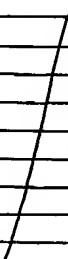

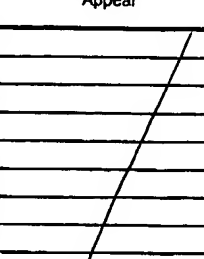
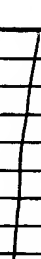
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		Country Code – Number-Kind Code				
 		EP 0 816 372 A1	07-01-1998			
		EP 0 751 142 A3	08-19-1998			
		EP 0 751 142 A2	01-02-1997			
		EP 0 668 295 B1	06-03-1998			
		EP 0 816 384 A3	01-07-1999			
		EP 0 816 384 A2	01-07-1998			
		EP 0 890 575 A1	01-13-1999			
		EP 0 197 310 A2	10-15-1986			
		EP 0 874 005 A1	10-28-1998			


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Wk		CHUNMING WANG, STEFAN FRIEDRICH, TODD R. YOUNKIN, ROBERT T. LI, ROBERT H. GRUBBS, DONALD A. BANSLEBEN, & MICHAEL W. DAY, Neutral Nickel(II)-Based Catalysts for Ethylene Polymerization, <i>Organometallics</i> 1998, 17, 3149-3151	
		XIAOHONG BEI, DALE C. SWENSON, & RICHARD F. JORDAN, Synthesis, Structures, Bonding, and Ethylene Reactivity of Group 4 Metal Alkyl Complexes Incorporating 8-Quinololato Ligands, <i>Organometallics</i> 1997, 16, 3282-3302	
		FRÉDÉRIC GUÉRIN, ORIN DEL VECHHIO & DAVID H. MCCONVILLE, Ortho-substituted aryl diamido complexes of zirconium: observation of rotameric isomers, <i>Polyhedron</i> Vol. 17, No. 5-6, pp. 917-923, 1998	
		TIMO REPO, MARTTI KLINGA, PEKKA PIETIKAINEN, MARKKU LESKELÄ, ANNE-MARJA UUSITALO, TUULA PAKKANEN, KIMMO HAKALA, PÄIVI AALTONEN & BARBRO LÖFGREN, Ethylenebis(salicylideneiminato)zirconium Dichloride: Crystal Structure and Use as a Heterogeneous Catalyst in the Polymerization of Ethylene, <i>Macromolecules</i> 1997, 30, 171-175	
		FRÉDÉRIC GUÉRIN, DAVID H. MCCONVILLE, & JAGADESE J. VITTAL, Conformationally Rigid Diamide Complexes of Zirconium: Electron Deficient Analogues of Cp ₂ Zr, <i>Organometallics</i> 1996, 15, 5586-5590	
		HANS FUHRMANN, SIMON BRENNER, PERDITA ARNDT, & RHETT KEMPE, Octahedral Group 4 Metal Complexes That Contain Amine, Amido, and Aminopyridinato Ligands: Synthesis, Structure, and Application in α -Olefin Oligo- and Polymerization, <i>Inorg. Chem.</i> 1996, 35, 6742-6745	
		ROBERT BAUMAN, WILLIAM M. DAVIS, & RICHARD R. SCHROCK, Synthesis of Titanium and Zirconium Complexes That Contain the Tridentate Diamido Ligand, $[(t\text{-Bu-}d_6)\text{N-}o\text{-C}_6\text{H}_4]_2\text{O}]^2-$ ((NON) ²⁻) and the Living Polymerization of 1-Hexene by Activated [NON]ZrMe ₂ , <i>J. Am. Chem. Soc.</i> 1997, 119, 3830-3831	
		JOHN D. SCOLLARD & DAVID H. MCCONVILLE, Living Polymerization of α -Olefins by Chelating Diamide Complexes of Titanium, <i>J. Am. Chem. Soc.</i> 1996, 118, 10008-10009	
		FRÉDÉRIC GUÉRIN, DAVID H. MCCONVILLE & NICHOLAS C. PAYNE, Conformationally Rigid Diamide Complexes: Synthesis and Structure of Titanium(IV) Alkyl Derivatives, <i>Organometallics</i> 1996, 15, 5085-5089	
✓		ANDREW D. HORTON, JAN DE WITH, ARIAN J. VAN DER LINDEN & HENK VAN DE WEG, Cationic Alkylzirconium Complexes Based on a Tridentate Diamide Ligand: New Alkene Polymerization Catalysts, <i>Organometallics</i> 1996, 15, 2672-2674	
Wk		HOWARD C. S. CLARK, F. GEOFFREY N. CLOKE, PETER B. HITCHCOCK, JASON B. LOVE, & ADRIAN P. WAINWRIGHT, Titanium(IV) complexes incorporating the aminodiamide ligand $[(\text{SiMe}_3)_2\text{N}(\text{CH}_2\text{CH}_2\text{N}(\text{SiMe}_3)_2)_2]^{2-}(\text{L})$; the X-ray crystal structures of $[\text{TiMe}_2(\text{L})]$ and $[\text{TiCl}(\text{CH}(\text{SiMe}_3)_2)(\text{L})]$, <i>Journal of Organometallic Chemistry</i> 501, 1995, 333-340	


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WKC		FREDÉRIC GUÉRIN, DAVID H. MCCONVILLE, JAGADESE J. VITTAL & GLEN A. P. YAP, Synthesis, Structure, and Reactivity of Zirconium Alkyl Complexes Bearing Ancillary Pyridine Diamide Ligands, <i>Organometallics</i> 1998, 17, 5172-5177	
		GIUSEPPE DI SILVESTRO, PIERO SOZZANI, & ALBERTO TERRAGNI, Polymerization of propene with enantiomeric site catalysts, 1, <i>Macromol. Chem. Phys.</i> 197, 3209-3228 (1996)	
		EUGENE OU-XIAN CHEN & TOBIN J. MARKS, Cocatalysts for Metal-Catalyzed Olefin Polymerization: Activators, Activation Processes, and Structure-Activity Relationships, <i>Chem. Rev.</i> 2000, 100, 1391-1434	
		K. EBNER, Bi-Model HDPE for Piping Systems and Further Applications, <i>Advances in Plastics Technology APT'97</i> , 9-11 December 1997, Katowice, Poland, pp 1-8	
		J. BERTHOLD, L. L. BÖHM, H. F. ENDERLE, P. GÖBEL, H. LÜKER, R. LECHT, & U. SCHULTE, Advanced polymerization process for tailor made pipe resins, <i>Plastics, Rubber and Composites Processing and Applications</i> 1996, Vol. 25, No. 8, pp. 366-372	
		A. MUÑOZ-ESCALONA, L. MÉNDEZ, J. SANCHO, P. LAFUENTE, B. PEÑA, W. MICHELIS, G. HIDALGO & M. F. MARTÍNEZ-NUÑEZ, Development of Supported Single-Site Catalysts and Produced Polyethylene, <i>Metalorganic Catalysts for Synthesis and Polymerisation, Recent Results by Ziegler-Natta and Metallocene Investigations</i> , pp. 381-396	
		JOHN SCHEIRS, LUDWIG L. BÖHM, JESSE C. BOOT & PAT S. LEEVERS, PE100 Resins for Pipe Applications: Continuing the Development into the 21 st Century, <i>TRIP</i> Vol. 4, No. 12, December 1996, pp.408-415	
		F. GEOFFREY N. CLOKE, PETER B. HITCHCOCK & JASON B. LOVE, Zirconium Complexes incorporating the New Tridentate Diamide Ligand [(Me ₃ Si)N(CH ₂ CH ₂ N(SiMe ₃)) ₂] ²⁻ (L); the Crystal Structures of [Zr(BH ₄) ₂ L] and [ZrCl(CH(SiMe ₃) ₂)L], <i>J. Chem. Soc. Dalton Trans.</i> 1995, pp. 25-30	
		AAPO U. HÄRKÖNEN, MARKKU AHLGRÉN, TAPANI A. PAKKANEN, & JOUNI PURSIANEN, Synthesis, crystal structure and characterization of the heterometallic tetranuclear butterfly cluster [Ru ₃ IrH ₂ (CO) ₁₂ Cl], <i>Journal of Organometallic Chemistry</i> 519 (1996), pp. 205-208	
WKC		LAN-CHANG LIANG, RICHARD R. SCHROCK, WILLIAM M. DAVIS, & DAVID H. MCCONVILLE, Synthesis of Group 4 Complexes that Contain the Diamidoamine Ligands, [2,4,6-Me ₃ C ₆ H ₂ NCH ₂ CH ₂ NR] ²⁻ ([Mes ₂ N ₂ NR] ²⁻ ; R = H or CH ₃), and Polymerization of 1-Hexene by Activated [Mes ₂ N ₂ NR]ZrMe ₂ Complexes, <i>J. Am. Chem. Soc.</i> 1999, 121, 5797-5798	

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